

MEMORANDUM

TO: John Mitnik, Bureau Chief, Engineering and Construction

THROUGH: Dean Powell, Bureau Chief, Water Supply

FROM: SFWMD Staff Water Supply Advisory Team

DATE: June 9th, 2015

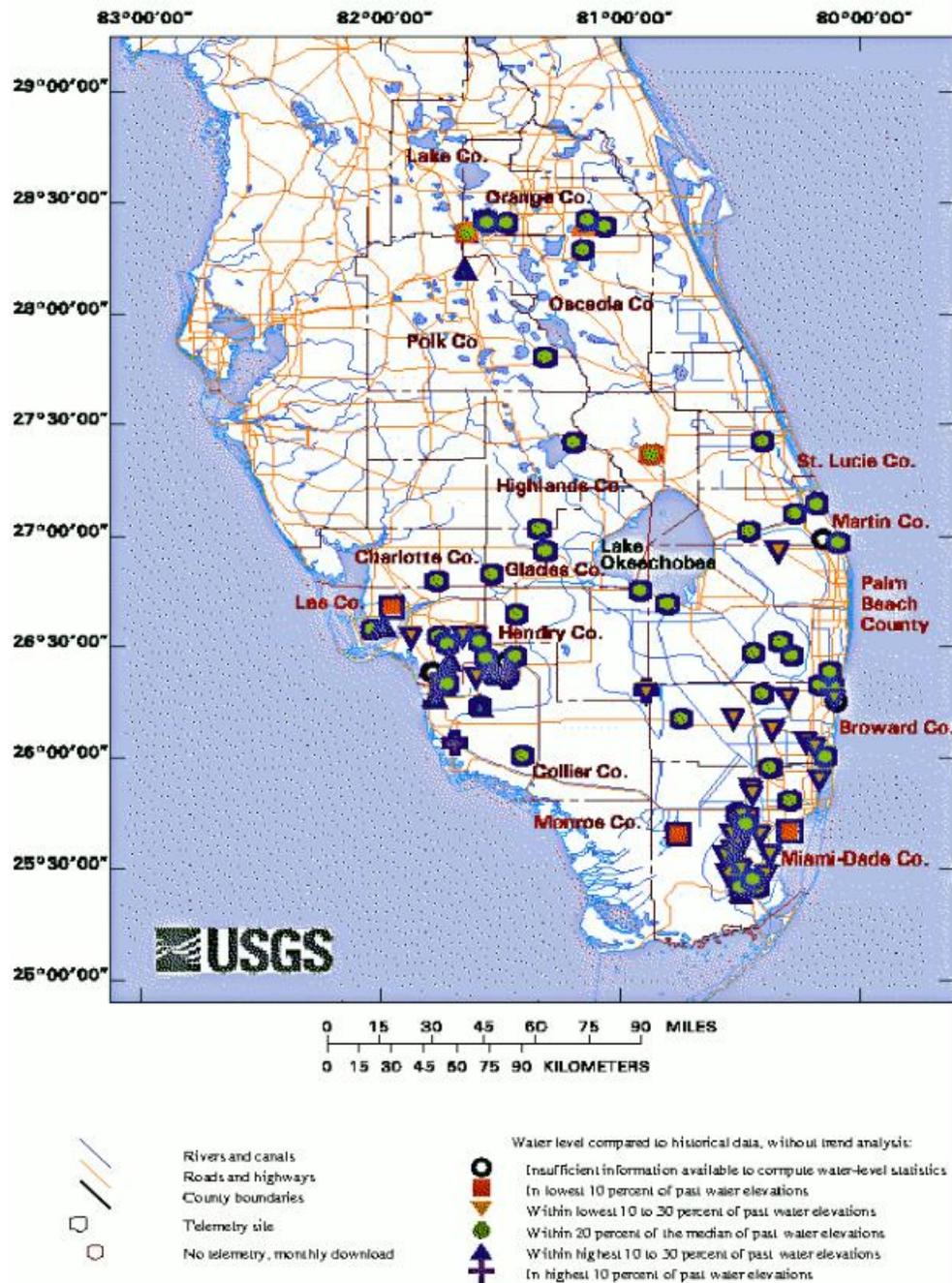
SUBJECT: Water Supply Report

District-wide Conditions

Groundwater levels showed mixed trends throughout most of the District over the last week. The United States Geological Survey (USGS) real-time wells in the Kissimmee Basin (KB) within the District boundaries were in the median percentile range or higher for this time of year. The majority of surface and groundwater stations in the KB recorded increases in water levels over the last seven days. Stages in the Upper East Coast (UEC) canals C-23, C-24, and C-25 were at 22.45, 18.57, and 19.11 feet, respectively, well above the 14 feet NGVD agricultural cutoff level. Most of the UEC surficial aquifer wells were in the median percentile range for this time of year. Surface and groundwater levels increased in the majority of the stations in the Biscayne aquifer over the last week. Conditions remain good in Palm Beach and northern Broward Counties and improved over much of Miami Dade County. Approximately 70 percent of USGS monitor wells in Miami Dade County are in the lower 10th to 30th percentile range or lower. Surface water levels have increased at the C-111 sites, Water Conservation Area (WCA) 3A, and Everglades National Park (ENP), but decreased in WCA-1 and WCA-2A. Stages are low in WCA-2A, WCA-3A, and ENP.

In the Lower West Coast (LWC), groundwater levels increased in over half of the stations over the last seven days. Approximately 80 percent of the wells in the Surficial aquifer are at median levels or higher. Ninety percent of the wells in the Lower Tamiami aquifer are at median levels and higher for this time of year. Over 75 percent of the Sandstone aquifer wells are at median levels, with the remainder in the lower 10th to 30th percentile range. The majority of the Mid-Hawthorn aquifer wells are in the median percentile range or higher. A few sites in coastal Lee County are in the lower 10th to 30th percentile range or lower. **Figure 1** is a USGS map showing conditions on May 25th, 2015, from a 7-day running average of daily recorded water levels compared to the statistical distribution of daily water levels for the period of record for selected sites in southern Florida.

PROVISIONAL DRAFT -- Subject to Revision



**Water levels at selected sites in South Florida,
Based on PROVISIONAL DATA, as of June 9, 2015.**

Figure 1. Current Water-level Conditions in South Florida (source: USGS, http://www.sflorida.er.usgs.gov/ddn_data/index_ndt.html)

Water Supply Technical Input to LORS2008

The Palmer Index for Lake Okeechobee (LOK) Tributary Conditions is -1.45, classified as “dry,” and is in the “moderate” risk category. The LOK stage for the next two months is projected to be in the Beneficial Use Sub-Band, and the risk to water supply is categorized as “moderate.” The Climate Prediction Center’s (CPC) Precipitation Outlook is projected as “above normal” for one month and “above normal” for three months, leaving both the one month and three month outlooks at “low” risk. The LOK Seasonal Net Inflow Forecast is in the “normal to extremely wet” range, with “low” risk to water supply. The Multi-Seasonal Net Inflow Forecast is projected as “wet,” with “low” risk to water supply. Stages in Water Conservation Areas 1 and 3A are above line 1 this week, in the “low” risk category. The stage in WCA-2A is below line 2 and is in the “high” risk category. Groundwater levels in Service Areas 1, 2 and 3 are in the “low” risk category. The Year-Round Irrigation Rule is in effect for the LEC Service Areas. **Figure 2** summarizes the water supply risk indicators.

LORS2008 Implementation on 6/8/2015 (ENSO Neutral Condition):

Water Supply Department Technical Input

Water Supply Outlook:

District wide, Raindar rainfall 1.34 inches for the week ending 6/9/2015. Lake stage on 6/8/2015 is 12.57 ft, down 0.12 ft from last week.

The updated June 2015 SFWMM Dynamic Position Analysis [percentile graph](#) and [tracking chart](#) for Lake Okeechobee show that the lake stage is in the Low Flow Operational Sub-Band.

The LORS2008 tributary [indices](#) are classified as **Normal**. The PDSI indicates normal condition and the LONIN is Dry. The classification is based on the wetter of the two.

Water Supply Risk Evaluation

Area	Indicator	Value	Color Coded Scoring Scheme
LOK	Projected LOK Stage for the next two months	Beneficial Use Sub-Band	M
	Palmer Index for LOK Tributary Conditions	-1.45 (Dry)	M
	CPC Precipitation Outlook	1 month: Above Normal	L
		3 months: Above Normal	L
	LOK Seasonal Net Inflow Forecast	3.58 ft (Normal to Extremely Wet)	L
	AMO warm/El Nino		
	LOK Multi-Seasonal Net Inflow Forecast	5.70 ft (Wet)	L
AMO warm/El Nino			
WCAs	WCA 1: Site 1-7, Site 1-8T, & Site 1-9 Average	Above Line 1 (15.58 ft)	L
	WCA 2A: Site 2-17 HW	Below Line 2 (10.41 ft)	H
	WCA-3A: 3 Station Average (Site 63, 64 and 65)	Above Line 1 (8.89 ft)	L
LEC	Service Area 1	Year-Round Irrigation Rule in effect	L
	Service Area 2	Year-Round Irrigation Rule in effect	L
	Service Area 3	Year-Round Irrigation Rule in effect	L

Note: The water supply risk classification based on the Palmer index, as well as the LOK seasonal and multi-seasonal net inflow forecasts use slightly different classification intervals than those used by the 2008-LORS for classifying the tributary hydrologic condition (THC).

Figure 2. Water Supply Risk Indicators